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A NEW SPECIES OF *ZELTNERA* (GENTIANACEAE) FROM TAMAULIPAS, MEXICO

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ABSTRACT

A new taxon, **Zeltnera nesomii** B.L. Turner, sp. nov., is described from the Sierra de San Carlos in Tamaulipas, Mexico. It is seemingly most closely related to the *Z. calycosa* complex of northern Mexico and closely adjacent Texas but differs in numerous characters, including ecogeography, branching habit, and leaf, corolla, and anther size. A photograph of the holotype is provided, along with a map comparing the distribution of the two species.

KEY WORDS: Gentianaceae, *Zeltnera, Z. calycosa*, Mexico, Tamaulipas

In Mansion's (2004) phyletic dismemberment of the classically conceived *Centaurium*, the present novelty is positioned in the predominantly North American genus *Zeltnera*. In his account, because of its small anthers and corollas, *Z. nesomii* readily keys to or near *Z. quitensis* (Kunth) Mansion. But, as well noted by Broome (1976), the latter "is always easily recognized because of the small tetramerous flowers," a character not employed in Mansion's key to species.

Zeltnera nesomii apparently belongs to Mansion's "Texan group" of taxa, which includes 8 species, most of these treated by Turner (1993), albeit as part of *Centaurium*. Among these, *Z. nesomii* is seemingly most closely related to *Z. calycosa* (Buckl.) Mansion. The latter, however, has a larger, less intricately branched habit and larger floral parts and its geographic distribution and ecology are distinct from the new species. The distribution of *Z. calycosa* continues into Texas and New Mexico. The two species are readily distinguished as follows.

1. Larger cauline leaves 2–3 times as long as wide; corolla lobes 5–6 mm long, 2–3 mm wide; anthers, before anthesis, ca 1.5 mm long ..... **Zeltnera nesomii**
1. Larger cauline leaves 3–5 times as long as wide; corolla lobes 8–11 mm long, 3–5 mm wide; anthers ca 3 mm long before anthesis ..... **Zeltnera calycosa**

ZELTNERA NESOMII B.L. Turner, sp. nov. Figure 1. **TYPE: MEXICO. Tamaulipas**. Mpio. San Carlos: Sierra de San Carlos, ca. 5 mi S of San Carlos, N side of Bufa El Diente, igneous bedrock, N-facing steep slope, woods of scattered oaks and shrubby vegetation of *Rhus*, *Croton*, *Chiococca*, *Helietta*, *Vauquelinia*, rich herbaceous layer, 770 m, 24° 31.5' N, 98° 57.6' W, flowers pink-rose, scattered but common, 17 Jun 1987, *G. Nesom 6051* with J. Norris, M. Martinez, and L. Woodruff (holotype: TEX).

Zeltnerae calycosae (Buckl.) Mansion similis sed differt foliis proximalibus 2–3plo longiorius quam latioribus (vs 3–5plo), corollis minoribus (lobis 5–6 mm in longitudine 1–2 mm in latitudine vs 8–11 mm x 3–5 mm; tubis 8–9 mm in longitudine vs 10–12 mm), et antheris (preanthesis) minoribus (ca 1.5 mm in longitudine vs ca 3 mm).

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TEX
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Centaurium calycosum (Buckl.) Fernald
Det. B.L. Turner 2011
perhaps new!
HOLOTYPE OF: Zeltnera nesomii B.L. Turner
sp. nov 2011
246
PLANTS OF MEXICO
GENTIANACEAE
Centaurium calycosum
TAMAULIPAS: Mpio. San Carlos, Sierra de San Carlos, ca. 5 mi S of San Carlos, N side of Bufa El Diente, igneous bedrock; N-facing steep slope; woods of scattered oaks and shrubby vegetation of Rhus, Croton, Chiococca Helietta, Vauquelinia; rich herbaceous layer;
770 m; 24 31.5'N, 98 57.6'W
Flrs pink-rose; scattered but common.
17 Jun 1987
Guy Nesom 6051
with J. Norris, M. Martinez, L. Woodruff
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University of Texas - Austin (LL, TEX)
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Figure 1. *Zeltnera nesomii* (holotype: TEX).

Annual glabrous herbs 10–15 cm tall, much-branched from about the middle of the main stem, the lower stems 4-sided and possessing wings ca 0.25 mm wide. **Leaves** opposite below, elliptic to oblanceolate, mostly 1–2 cm long, 0.5–1.0 cm wide, the margins entire. **Inflorescence**, much-branched, terminal thryse ca 6–8 cm high, 6–8 cm wide. **Corollas** "pinkish-rose," the lobes 5–6 mm long, 1–2 mm wide; tubes 8–9 mm long. **Sepals** 5, linear-lanceolate, 6–8 mm long. **Anthers** ca 1 mm long before anthesis, afterwards ca 1.5 mm long. **Styles** ca as long as the stamens, broadly bilobed, their apices ca 0.25 mm wide. **Capsules** linear, 7–8 mm long, ca 1.5 mm wide. **Seeds** broadly ovate, ca 0.4 mm long, 0.3 mm wide.

Additional specimen examined. **MEXICO. Tamaulipas**: Same locality as the Type but "near top of slope, igneous bedrock, open woods of scattered oaks and pines, ca 1200 m, scattered but common," 18 Jun 1987, *Nesom 6140* (TEX).

The novelty is named for Guy Nesom, collector of the plant on a field trip with colleagues from the University of Texas Plant Resources Center in 1987.

ACKNOWLEDGEMENTS

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LITERATURE CITED

Broome, C.R. 1976. The Central American species of *Centaurium* (Gentianaceae). Brittonia 28: 413–426.

Mansion, G. 2004. A new classification of the polyphyletic genus *Centaurium* Hill (Chironiinae, Gentianaceae): Description of the New World endemic *Zeltnera* and reinstatement of *Gyrandra* Griseb. and *Schenkia* Griseb. Taxon 53: 719–740.

Turner, B.L. 1993. Texas species of *Centaurium* (Gentianaceae). Phytologia 75: 259–275.

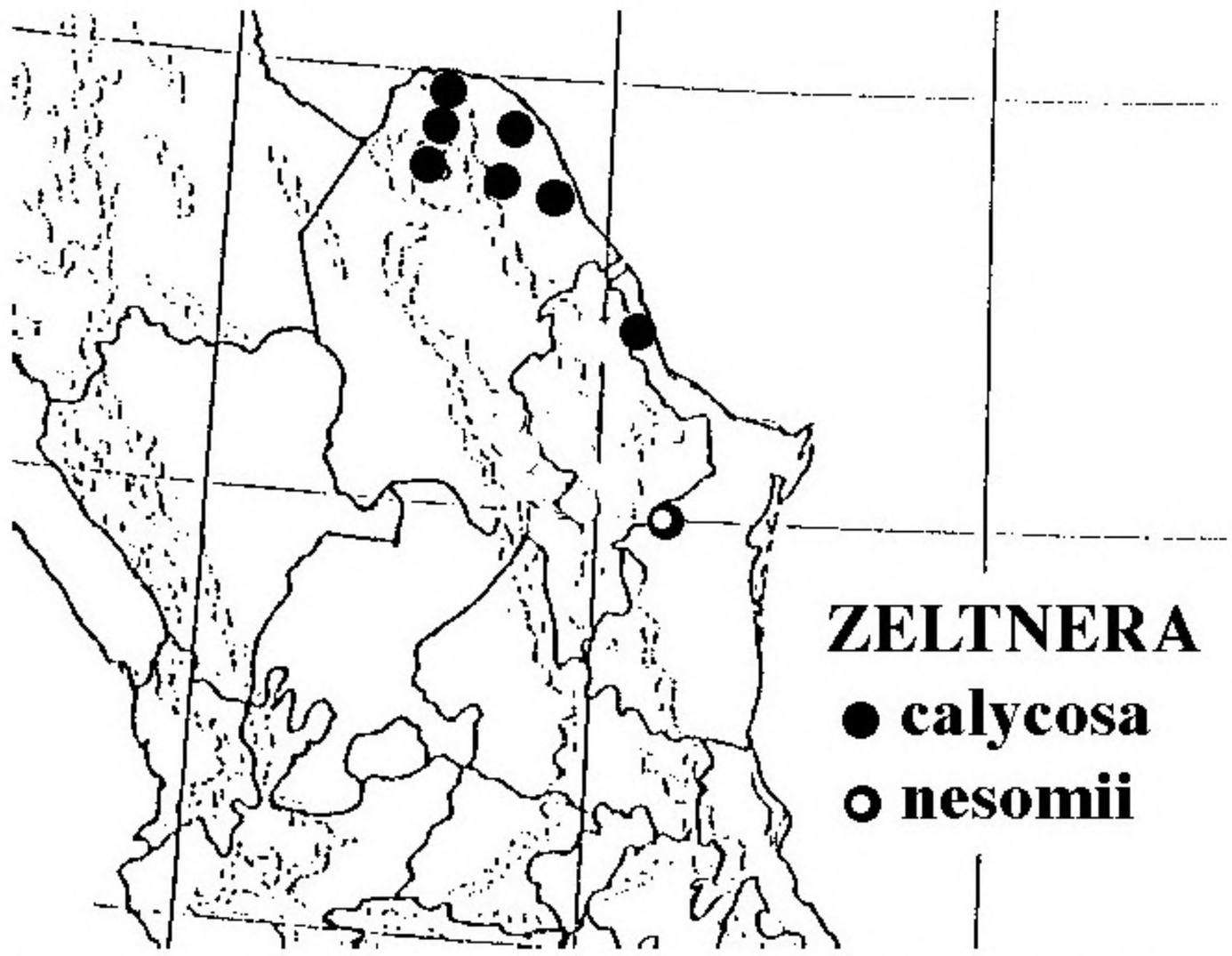

Figure 2. Distribution of *Zeltnera nesomii* and *Z. calycosa* in northern Mexico.